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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,585	09/29/2003	David Ehreth	12209-004001 / 139220	9952

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EXAMINER

SWERDLOW, DANIEL

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/675,585

Applicant(s)

EHRETH ET AL.

Examiner

Daniel Swerdlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/5/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 17, 22 and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Cornes et al. (US Patent 6,272,217).

3. Regarding Claim 1, Cornes discloses a method for routing call processing communications in a telecommunications system that includes a digital loop carrier (i.e., communicating with a digital loop carrier (Fig. 1, reference 4; column 3, lines 16-7) comprising: receiving from a BPT card in the central office (i.e., a controlling entity) (Fig. 6, step 108; column 7, lines 36-39) a message oriented signal (Fig. 5, reference 70) including line identification and action information (column 5, line 58 through column 6, line 19); generating an establish message (i.e., a message that includes line identification and action information) (Fig. 6, reference 110; column 7, lines 39-45; and sending the establish message to the LEC network (i.e., sending the generated message to the DLC) (Fig. 6, step 112; column 7, lines 45-46).

4. Claims 17 and 26 are essentially similar to Claim 1 and are rejected on the same grounds.

5. Regarding Claim 22, Cornes further discloses providing pulsed polarity, steady polarity, and trunk condition signaling (i.e., telephony resources for loop).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 through 4, 8 through 10, 12, 16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cornes in view of Daugherty et al. (US Patent 5,381,405).

8. Regarding Claim 2, as shown above apropos of Claim 1, Cornes anticipates all elements except receiving line identification information that specifies a connectable end point in the digital loop carrier by specifying any combination of a physical device, a node, a facility, a channel and a telephony bearer resource in the digital loop carrier. Daugherty discloses representation (i.e., identification) of loop endpoint by specifying a distant terminal (i.e., a physical device and a channel) (Fig. 6; column 8, lines 29-31). It would have been obvious to one skilled in the art at the time of the invention to apply end point identification as taught by Daugherty to the routing method taught by Cornes for the purpose of specifying an endpoint without using a switch termination point or a timeslot (Cornes: column 8, lines 23-25).

9. Regarding Claim 3, Daugherty further discloses representation (i.e., identification) of loop endpoint by specifying a port number (i.e., a bank, network unit and slot) (Fig. 6; column 8, lines 29-31).

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10. Regarding Claim 4, Daugherty further discloses generating a message from the distant terminal to the remote terminal that includes the line identification information (column 8, lines 36-39).
11. Regarding Claim 8, Daugherty further discloses requesting dial tone in an origination mode (i.e., receiving action information requesting hook status) (column 11, lines 22-27).
12. Regarding Claim 9, Daugherty further discloses multiple actions establishing multiple connections (i.e., cross connects) between multiple endpoints (column 2, lines 49-58).
13. Regarding Claim 10, Cornes further discloses acknowledgement of establishing the cross connection (i.e., receiving and executing the message) (column 7, lines 35-56).
14. Regarding Claim 12, Daugherty further discloses tearing down established connections (i.e., receiving action information specifying a disconnect action that causes the digital loop carrier to release connectable end points identified by the line identification information) (column 11, lines 40-45).
15. Regarding Claim 16, Daugherty further discloses representation of loop endpoint (i.e., generating a message) by specifying (i.e., that includes) a distant terminal and a port number (i.e., a correlation tag and message header information) (Fig. 6; column 8, lines 29-31).
16. Regarding Claim 21, Daugherty further discloses multi-party calls (column 13, lines 14-18).
17. Claims 5 through 7, 13, 15, 18 through 20, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cornes in view of Giordano et al. (US Patent 6,366,662).

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18. Regarding Claim 5, as shown above apropos of Claim 1, Cornes anticipates all elements except providing a standby link as a backup link for the active link. Giordano discloses using an alternative route when a connection becomes severed (i.e., providing a standby link as a backup link for the active link) (Fig. 3; column 4, lines 13-15). It would have been obvious to one skilled in the art at the time of the invention to apply use of a backup link as taught by Giordano to the routing method taught by Cornes for the purpose of bypassing a severed connection.

19. Regarding Claim 6, Giordano further discloses using the controller to invoke the alternate routing (i.e., receiving information that causes the DLC to switch the link) (column 4, lines 15-16).

20. Regarding Claim 7, Giordano further discloses completing a call through the alternate route if it is available (i.e., acknowledgement that the DLC has switched the link) (column 5, lines 31-36).

21. Regarding Claim 13, as shown above apropos of Claim 1, Cornes anticipates all elements except receiving action information queries for the presence of a cross connection between specified endpoints. Giordano discloses a controller that routes subscriber calls to alternate equipment when a communications link malfunctions (i.e., queries for the presence of a cross connection between specified endpoints) (column 2, lines 39-48). Giordano further discloses that such a system enhances reliability of the DLC system (column 2, line 64 through column 3, line 3). It would have been obvious to one skilled in the art at the time of the invention to apply use of a controller as taught by Giordano to the routing method taught by Cornes for the purpose of realizing the aforesaid advantages.

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22. Regarding Claim 15, as shown above apropos of Claim 1, Cornes anticipates all elements except receiving action information reporting locations of the cross connection currently established. Giordano discloses a controller that handles routing for all remote terminals (i.e., receives information reporting locations of the cross connection currently established) (Fig. 3, reference 24; column 3, lines 53-55). Giordano further discloses that such a system enhances reliability of the DLC system (column 2, line 64 through column 3, line 3). It would have been obvious to one skilled in the art at the time of the invention to apply use of a controller as taught by Giordano to the routing method taught by Cornes for the purpose of realizing the aforesaid advantages.

23. Regarding Claim 18; as shown above apropos of Claim 17, Cornes anticipates all elements except providing telephony resources for tone detection and generation. Giordano discloses providing digit collection and dial tone generation (i.e., tone detection and generation) (column 4, lines 47-49). Giordano further discloses that such a system allows the remote terminal to assume functions of a switch. It would have been obvious to one skilled in the art at the time of the invention to apply digit collection and dial tone generation as taught by Giordano to the routing method taught by Cornes for the purpose of realizing the aforesaid advantages.

24. Regarding Claim 19, Giordano further discloses generating all call resources (i.e., tone detection and generation) (column 4, lines 49-58).

25. Regarding Claim 20, Giordano further discloses generating all call resources (i.e., detecting and generating pulse dialing, multi-frequency tones and dual tone multi-frequency tones) (column 4, lines 49-58).

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26. Regarding Claims 24 and 25, as shown above apropos of Claim 17, Cornes anticipates all elements except providing telephony resources for tone detection and generation. Giordano discloses generating all call resources (i.e., providing frequency shift keying modem tones) (column 4, lines 49-58). Giordano further discloses that such a system allows the remote terminal to assume functions of a switch. Because provision of caller id and message waiting indication services by a switch is well known and provided using frequency shift keying modem tones, it would have been obvious to one skilled in the art at the time of the invention to apply providing frequency shift keying modem tones as taught by Giordano to the routing method taught by Cornes for the purpose of providing all functions of a switch.

27. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cornes in view of Daugherty and further in view of Giordano.

28. Regarding Claim 11, as shown above apropos of Claim 9, the combination of Cornes and Daugherty makes obvious all elements except providing a standby link and sending the message to the digital loop carrier over the active link to replicate dynamic cross connects to the standby side. Giordano discloses using an alternative route when a connection becomes severed (i.e., providing a standby link and sending the message to the digital loop carrier over the active link to replicate dynamic cross connects to the standby side) (Fig. 3; column 4, lines 13-15). It would have been obvious to one skilled in the art at the time of the invention to apply use of a backup link as taught by Giordano to the combination made obvious by Cornes and Daugherty for the purpose of bypassing a severed connection.

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29. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cornes in view of Giordano and further in view of Daugherty.

30. Regarding Claim 14, as shown above apropos of Claim 13, the combination of Cornes and Giordano makes obvious all elements except receiving a report specifying hook status. Daugherty discloses detection of a busy state in a called number (i.e., receiving a report specifying hook status) (column 11, lines 22-27). Daugherty further discloses that this detection is necessary for call processing. It would have been obvious to one skilled in the art at the time of the invention to apply busy detection as taught by Daugherty to the combination made obvious by Cornes and Giordano for the purpose of providing call processing services.

31. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cornes.

32. Regarding Claim 23, as shown above apropos of Claim 22, Cornes anticipates all elements except loop-start, ground start, loop-reverse battery and E&M signaling. Because these are all standard trunk signaling schemes, it would have been obvious to one skilled in the art at the time of the invention to apply well known loop-start, ground start, loop-reverse battery and E&M signaling to the system taught by Cornes for the purpose of making the system usable with existing trunk facilities.

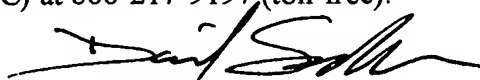
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Swerdlow whose telephone number is 571-272-7531. The examiner can normally be reached on Monday through Friday between 7:30 AM and 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H. Tran can be reached on 571-272-7564. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Daniel Swerdlow
Examiner
Art Unit 2644

ds
29 March 2005